Stat and Data Analysis Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Activity 5.1A

Instructions:

1. Get a cup with 10 thumbtacks from Mrs. McNelis
2. First make a guess as to the proportion of times you think that the thumbtack would land point up.

*p* = \_\_\_\_\_

1. Toss the thumbtacks onto the desk and record if it was point up (U) or point down (D). Record the number of Points Up (U) and Points Down (D) on the table below.
2. Repeat this 4 more times for a total of 5 trials.

|  |  |  |  |
| --- | --- | --- | --- |
| Result | Point Up (U) | Point Down (D) | Percent Up |
| Trial #1 |  |  |  |
| Trial #2 |  |  |  |
| Trial #3 |  |  |  |
| Trial #4 |  |  |  |
| Trial #5 |  |  |  |
| Total Counts |  |  |  |

1. For each Trial find percent of times the thumbtacks landed point up.
2. Total up the number of times it was point up and the number of times it was point down.
3. Divide the number of times it landed point up by the total number of tosses (50).



1. How close was your guess?
2. Is this the true proportion? Explain.
3. On the board put each of your trial results with the rest of the class’s proportions.
4. Did everyone in the class get the same proportion?
5. Why might people’s proportions differ?
6. Put the class’s Trial Data into your calculator and create a histogram.
7. Find the summary statistics of the class sample proportions.



1. Describe the histogram for the class sample proportions. (Shape, Center Spread)
2. In L2 Enter the Class’s Total Percent. Create the histogram.
3. Find the summary statistics of the class sample proportions.



1. Compare the two distributions. What is similar? What is different?